

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY


(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 24 JUN 2005

WIPO

PCT

Applicant's or agent's file reference P005245-PCT		<b>FOR FURTHER ACTION</b>		See Form PCT/PEA/416
International application No. PCT/BR2004/000049		International filing date (day/month/year) 01.04.2004		Priority date (day/month/year) 02.04.2003
International Patent Classification (IPC) or national classification and IPC F24C14/00, A47L15/00				
Applicant DE MIRANDA GRIECO, Antonio Augusto				
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau) a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (Indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input checked="" type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application</p>				
Date of submission of the demand  19.10.2004		Date of completion of this report  27.06.2005		
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016		Authorized Officer  Van Gestel, H  Telephone No. +31 70 340-3155		



# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
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## Box No. I Basis of the report

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1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

### Description, Pages

1-13 as originally filed

### Claims, Numbers

1-3 received on 19.10.2004 with letter of 21.09.2004  
4-14 filed with telefax on 10.03.2005

### Drawings, Sheets

1/5-5/5 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

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**Box No. IV Lack of unity of invention**

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1. ☐ In response to the invitation to restrict or pay additional fees, the applicant has:
- ☐ restricted the claims.
  - ☐ paid additional fees.
  - ☐ paid additional fees under protest.
  - ☐ neither restricted nor paid additional fees.
2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is
- ☐ complied with.
  - ☐ not complied with for the following reasons:
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☒ all parts.
  - ☐ the parts relating to claims Nos. .

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	1-14
	No: Claims	
Inventive step (IS)	Yes: Claims	1-12
	No: Claims	13-14
Industrial applicability (IA)	Yes: Claims	1-14
	No: Claims	

2. Citations and explanations (Rule 70.7):

**see separate sheet**

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**Box No. VIII Certain observations on the international application**

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The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

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**Re Item IV.**

The separate inventions are:

Claims 1-12: A kitchen-range having a cleaning assembly arranged in the cooking top.

Claim 20: Cleaning arrangement attachable to a cooking apparatus.

They are not so linked as to form a single general inventive concept (Rule 13.1 PCT) for the following reasons:

There are two groups of claims.

1. Claims 1-12 : A kitchen-range having a cleaning fluid spraying assembly arranged in the cooking top. The problem to be solved is the cleaning of the top of a cooking range.

2. Claim 13 : Cleaning arrangement attachable to a cooking apparatus. The problem to be solved is to provide a removable cleaning device for cooking gear.

The problems to be solved by the special technical features are different from each other, as are the solutions to solve these problems. Therefore none of these groups of inventions have the same or common special technical features, the technical relationship between the subject-matter of these groups of claims is not present and the requirement for unity of invention is not fulfilled.

**Re Item V.**

- 1 The following documents are referred to in this communication:  
D1 : US 3 059 632 A (ROGERS JOHN C) 23 October 1962 (1962-10-23)  
D2 : US 3 593 728 A (BURGER EISENWERKE AG) 20 JULY 1971 (1971-07-20)  
The document D2 was not cited in the international search report. A copy of the document is appended hereto.

**2 INDEPENDENT CLAIM 1**

- 2.1** Document D1, which is considered to represent the most relevant state of the art, discloses (the references in parenthesis applying to this document):  
A kitchen range having a cooking top comprising a surface, wherein at least one heating device and a support means are arranged, and a cover that can cover it.

From this, the subject-matter of independent claim 1 differs in that:  
The kitchen-range comprises a first cleaning-element spraying assembly arranged in the cooking top, said surface of the latter being inclined with respect to the horizontal plane, so the sprayed elements can flow into a drain opening connected to a re-feeding circuit for feeding cleaning elements back to said first spraying assembly, a cleaning-element delivering valve (20a) connecting an external source to said circuit, and a cleaning-element draining valve connecting the circuit to an external drain means; and control means to open and close the valves, enabling the cleaning elements to get into and out of the cleaning circuit, and to turn on and off said valves, initiating and finishing the circulation of the cleaning elements in the circuit.

- 2.1.1** The subject-matter of claim 1 is therefore novel (Article 33(2) PCT)  
The problem to be solved by the present invention may be regarded as:  
To provide a automatic build-in cleaning arrangement for a cooking range.
- 2.1.2** The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:  
The state of the art discloses no cleaning means for the top of a cooking range other than for manual cleaning. The document D2 discloses a cover for a deep fat fryer, having spraying means for cleaning agent but contains no indication how to adapt this cleaning arrangement for the cleaning the top of a cooking range.

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- 2.1.3 Claims 2-12 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

**Re Item VIII.**

**3. INDEPENDENT CLAIM 13**

- 3.1 The application does not meet the requirements of Article 6 PCT, because claims 13 and 14 are not clear.
- 3.2 The claims not only define a self-cleaning assembly itself but also specify its relationship to other entities, a drain opening, propelling means and a spraying assembly, which are not part of the claimed assembly.



propelling means to the second spraying assembly (107), so that the second opening (108), the third conduit (105), the propelling means, the fourth conduit (104), the second spraying conduit (107) and the base surface (122) will form a cleaning-element circuit.

5           4. A kitchen-range according to any one of claims 1 to 3, characterized in that the cleaning elements are cleaning liquids.

5. A kitchen-range according to any one of claims 1 to 4, characterized in that the propelling means are a pump (19).

10          6. A kitchen-range according to any one of claims 1 to 5, characterized in that the cleaning-element delivering valve (9) is connected to the entrance of the pump (19) by means of a reservoir (2).

7. A kitchen-range according to claim 6, characterized in that the circuit comprises cleaning-element heating means.

15          8. A kitchen-range according to any one of claims 1 to 7, characterized in that the spraying means consist of at least one spraying arm (7, 107) and a sprayer (6).

9. A kitchen-range according to any one of claims 1 to 8, characterized in that the first (8) and the second (108) openings include filters (21, 121).

20          10. A kitchen-range according to any one of claims 1 to 9, characterized in that the control means (51) comprise at least one from an electronic circuit and a timer.

11. A kitchen-range according to any one of claims 1 to 10, characterized in that the valves (9, 10) are pumps.

25          12. A kitchen-range according to any one of claims 1 to 11, characterized in that said first cleaning-element spraying assembly (6, 7) is arranged on said at least one surface (22) of the cooking top (13) and/or at the cover (16) of the kitchen-range.

13. A self-cleaning assembly attachable to a cooking top, characterized by comprising:

30           - at least one first conduit (205) capable of connecting a drain opening in said cooking top to propelling means, and at least one second conduit (204) capable of connecting the propelling means (219) to a spraying assembly on the

cooking top, so that the opening, the first conduit, the propelling means, the second conduit, the spraying assembly will form a cleaning circuit;

- a cleaning-element delivering valve (209) connecting an external source to said circuit, and a cleaning-liquid draining valve (210) connecting the
- 5 circuit to an external drain means.

14. A self-cleaning assembly according to claim 13, characterized in that the cooking top is a part of a kitchen-range.